

# CLAIMS

What is claimed is:

1. A data input method for use with a computer system for user data input to the computer system, comprising the steps of:

(1) predefining a set of combinations of hand digit movements, each combination of hand digit movements representing a specific character;

(2) predefining a character mapping table which maps each combination of hand digit movements predefined in said step (1) to a specific character;

(3) sensing user's wrist muscle movements due to the user's hand digit movements representing a character intended for input to the computer system, and thereby producing a corresponding data signal;

(4) transmitting the data signal to the computer system; and

(5) searching through the character mapping table to find the character corresponding to the received data signal.

2. The method of claim 1, wherein in said step (1), the user's wrist muscle movements are sensed by a data input device coupled to the user's wrist.

3. The method of claim 2, wherein the data input device comprises a piezoelectric element, a signal conversion unit, a signal processing unit.

4. The method of claim 3, wherein the piezoelectric element is attached to the user's wrist to sense the wrist's muscle movements due to the user's hand digit movements representing a keyboard character intended for input to the computer system to thereby produce a corresponding electrical signal.

5. The method of claim 3, wherein the signal conversion unit is coupled to the piezoelectric element to convert the output signal of the piezoelectric element into a data signal.

6. The method of claim 5, wherein the data signal is a digital signal.

7. The method of claim 5, wherein the data signal is an analog signal.

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8. The method of claim 3, wherein the signal processing unit is coupled to the signal conversion unit and is capable of modulating the data signal into transmittable form for transmission to the computer system.

9. The method of claim 1, further comprising the step of:

displaying the data corresponding to the received data signal on a monitor screen.

10. A data input method for use to input data to a computer system, comprising the steps of:

(1) coupling a sensing device to user's wrist, the sensing device capable of sensing wrist's muscle movements to thereby produce a corresponding electrical signal;

(2) sensing the user's wrist muscle movements to thereby produce a corresponding data signal;

(3) transmitting the data signal to the computer system;

(4) activating the computer system to search through a character mapping table to find the data corresponding to the received data signal; and

(5) displaying the data corresponding to the received data signal on a monitor screen.

11. The method of claim 10, wherein the sensing device comprises a piezoelectric element, a signal conversion unit, a signal processing unit.

12. The method of claim 11, wherein the piezoelectric element is attached to the user's wrist to sense the wrist's muscle movements due to the user's hand digit movements representing a keyboard character intended for input to the computer system to thereby produce a corresponding electrical signal.

13. The method of claim 11, wherein the signal conversion unit is coupled to the piezoelectric element to convert the output signal of the piezoelectric element into a data signal.

14. The method of claim 13, wherein the data signal is a digital signal.

15. The method of claim 13, wherein the data signal is an analog signal.

16. The method of claim 11, wherein the signal processing unit is coupled to the signal conversion unit and is capable of modulating the data signal into transmittable form for transmission to the computer system.

17. A data input method for use with a sensing device including a piezoelectric element,  
5 a signal conversion unit, and a signal processing unit, to input data to a computer system, comprising the steps of:

(1) coupling the sensing device to user's wrist, the sensing device capable of sensing wrist's muscle movements to thereby, producing a corresponding electrical signal;

(2) activating the piezoelectric element to sense the user's wrist muscle movements  
10 due to the user's hand digit movements representing a keyboard character intended for input to the computer system, whereby the piezoelectric element produces a corresponding electrical signal;

(3) activating the signal conversion unit to convert the electrical signal into a data  
15 signal;

(4) activating the signal processing unit to modulate the data signal for transmission  
20 to the computer system;

(5) activating the computer system to search through a character mapping table to  
find the data corresponding to the received data signal; and

(6) displaying the data corresponding to the received data signal on a monitor  
25 screen.

18. A data input device for use to input data to a computer system, comprising  
a piezoelectric element coupled to user's wrist and capable of sensing wrist's muscle  
movements to thereby produce a corresponding electrical signal representing a computer  
code intended for input to the computer system;

25 a signal conversion unit coupled to the piezoelectric element and capable of converting the electrical signal from the piezoelectric element into a data signal; and

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a signal processing unit coupled to the signal conversion unit and capable of modulating the data signal for transmission to the computer system.

19. A data input device for use to input data to a computer system, comprising

a piezoelectric element coupled to user's wrist and capable of sensing wrist's muscle movements to thereby produce a corresponding electrical signal representing a computer code intended for input to the computer system;

a signal conversion unit coupled to the piezoelectric element and capable of converting the electrical signal from the piezoelectric element into a data signal;

a signal processing unit coupled to the signal conversion unit and capable of modulating the data signal for transmission to the computer system; and

mapping means provided in the computer system, which is capable of finding the computer code corresponding to the received data signal from the signal processing unit.

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